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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,352	01/22/2004	Hideo Satoh	US01-03047	3260

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EXAMINER

SEVER, ANDREW T

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,352

Applicant(s)

SATO ET AL.

Examiner

Andrew T. Sever

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,4,10-14,16 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9,15,17,19 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/2004, 1/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I (claims 1, 3, 5-9, 15, 17, 19, and 20) in the reply filed on 7/29/2005 is acknowledged.
2. Claims 2, 4, 10-14, 16, and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/29/2005.

Drawings

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 5, 6, 8, 9, 15, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sergay Malkin (EP 0 887 783 A2 as provided by the applicant in applicant's IDS dated 5/13/2004).

Malkin teaches in figure 1 an image display apparatus comprising:

At least two linear image display device (10, there are four devices) for respectively displaying linear images in response to image signals; and

A moving mechanism section for periodically moving the at least two linear image display devices along at least two locus planes substantially parallel to each other (at least the opposite pair move parallel to each other, see page 4 first paragraph lines 1-11 for a description of the arrays being moved)

With regards to applicant's claim 5:

Part 20 is described as an opaque barrier, which would inherently reduce reflections and therefore would qualify as an antireflective device. Since it is in the center along with other areas it is in parallel to the locus planes.

With regards to applicant's claim 6:

The image display device comprises of a plurality of light emitting diodes (see line 4 of page 4 for example).

With regards to applicant's claim 8:

See figure 5 which shows the drive mechanism for transmitting rotational movement, and since rotational movement is along a horizontal direction, it qualifies as causing horizontal movement.

With regards to applicant's claim 9:

At any given moment 2 of the displays have movement components that are horizontal movement perpendicular to a display direction.

With regards to applicant's claims 15, 19, and 20:

See above with regards to claim 1, 5, and 6 respectively.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 3, 7, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sergay Malkin (EP 0 887 783 A2) as applied to claims 1, 5, 6, 8, 9, 15, 19 and 20 above, and further in view of Chakrabarti (US 6,005,608).

As described in more detail above Malkin teaches a display apparatus which among other things comprises of a moving section, however Malkin does not teaches that the moving mechanism comprises of a pair of pulleys pulling a belt or chain member with the display member disposed on the belt at different locations. Chakrabarti teaches in figure 7 a stereoscopic display device, which includes a pair of rotating shafts (shaft connected to

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30b and 32 b from motor 18b) and a pair of belt members extended between a pair of pulleys (pulleys 32b and 30b; belts 38b and 40b), two display means (12) are attached to the belt members. Chakrabarti teaches in column 1 lines 41-53 that prior art-rotating systems such as Malkin are bulky, large, and heavy, as well as generate excessive noise and vibration which would hinder the appreciation of a moving image. The system of Chakrabarti for moving the dimply means however is reliable, and relatively inexpensive while having low noise and vibration (since the belt obviously would absorb at least some of the vibrations caused by the motor.) Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount the display means of Malkin on a pulley system such as taught by Chakrabarti.

With regards to applicant's claim 7:

Although not shown obviously a second rod exists between pulleys 22b and 24b.

With regards to applicant's claim 17:

See above.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

R. B. Collender US 3,178,720 which teaches various stereoscopic and 3D projection means.

US 6,302,542 to Tsao teaches in figures 2 a pulley means for rotating a 3D display.

US 5,057,827 to Nobile et al. teaches in figures 2 and 1 an LED based display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AS

William Perkey
Primary Examiner